

WHAT IS CLAIMED IS:

1. An immunogen comprising a peptide segment of at least 8 but not more than 14 amino acid units in length which segment comprises a sequence selected
5 from the group consisting of the sequence of SEQ ID NO: 1, 2, 3, 4 and 5 or a sequence differing from said sequence by not more than 1 amino acid and wherein said immunogen is not hsp65 protein.

2. The immunogen of claim 1 wherein said peptide segment has an amino acid sequence selected from the group consisting of SEQ ID NO: 1, 2, 3, 4 and 5.

10 3. The immunogen of claim 1 or 2 wherein said immunogen segment comprises at least 5 copies of one or more of said peptides.

4. The immunogen of claim 1 or 2 wherein said immunogen is a polypeptide.

15 5. The immunogen of claim 1 wherein said difference of one amino acid residue is the result of a substitution of one hydrophobic amino acid unit by another hydrophobic amino acid.

6. The immunogen of claim 1 wherein said difference of one amino acid residue is the result of a substitution of one polar amino acid unit by another polar amino acid.

20 7. The immunogen of claim 1 wherein said difference of one amino acid residue is the result of a substitution of one acidic amino acid unit by another acidic amino acid.

8. The immunogen of claim 1 wherein said difference of one amino acid residue is the result of a substitution of one basic amino acid unit by another basic amino acid.

9. A polynucleotide comprising a polynucleotide sequence encoding a polypeptide according to claim 4.

10. The polynucleotide of claim 9 wherein said polynucleotide is DNA.

11. The polynucleotide of claim 9 wherein said polynucleotide is RNA.

5 12. A vector comprising a polynucleotide of claim 9.

13. A recombinant mammalian cell comprising the vector of claim 12 and expressing said polynucleotide.

10 14. A vaccine composition comprising an immunologically active amount of the immunogen of claim 1, 2, 3, 4, 5, 6, 7 or 8 wherein said immunogen is suspended in a pharmaceutically acceptable carrier.

15. An antibody specific for an immunogen of claim 1, 2, 3, 4, 5, 6, 7 or 8.

15 16. A process for inducing a cytotoxic T lymphocyte (CTL) *in vitro* that is specific for a tuberculosis infected cell expressing HLA-A2 comprising contacting a precursor CTL with an immunogen of claim 1 under conditions that generate a CTL response to such an infected cell.

17. A process for inducing a cytotoxic T lymphocyte (CTL) *in vitro* that is specific for a tuberculosis infected cell expressing HLA-A2 comprising contacting a precursor CTL with an immunogen of claim 2 under conditions that generate a CTL response to such an infected cell.

20 18. A process for inducing a CTL response *in vitro* that is specific for a tuberculosis infected cell expressing HLA-A2, said process comprising contacting a precursor CTL with a mammalian cell of claim 13.

19. A process for treating a subject with tuberculosis characterized by tuberculosis infected cells expressing HLA-A2, said process comprising administering CTLs induced by the processes of claims 16, 17 or 18 in an amount sufficient to destroy the infected cells through direct lysis or to effect the destruction of the infected cells indirectly through the elaboration of cytokines.

20. The process of claim 18 wherein said infected cells are macrophages.

21. A process for treating a tuberculosis-afflicted subject characterized by cells expressing any class I MHC molecule and a gene coding for an epitopic peptide sequence of SEQ ID NO: 1, 2, 3, 4 or 5, whereby the CTLs of claim 19 are administered in an amount sufficient to destroy the infected cells through direct lysis or to effect the destruction of the infected cells indirectly through the elaboration of cytokines.

22. The process for claim 21 wherein said infected cells are macrophages.

23. A process for inducing a CTL response in a subject, said process comprising administering at least one immunogen of claim 1, 2, 3, 4, 5, 6, 7 or 8, including combinations thereof, to an HLA-A2 positive subject and in an amount sufficient to induce a CTL response to tuberculosis-infected cells expressing HLA-A2.

24. An isolated peptide of at least 8 but not more than 14 amino acid units in length and having a sequence differing by no more than one amino acid residue from a sequence selected from the group consisting of the sequence of SEQ ID NO: 1, 2, 3, 4 and 5.

25. The isolated peptide of claim 24 wherein said oligopeptide has an amino acid sequence selected from the group consisting of SEQ ID NO: 1, 2, 3, 4 and 5.

26. The isolated peptide of claim 24 or 25 wherein said difference of one amino acid residue is the result of a substitution of one hydrophobic amino acid unit by another hydrophobic amino acid.

5 27. The isolated peptide of claim 24 or 25 wherein said difference of one amino acid residue is the result of a substitution of one polar amino acid unit by another polar amino acid.

28. The isolated peptide of claim 24 or 25 wherein said difference of one amino acid residue is the result of a substitution of one acidic amino acid unit by another acidic amino acid.

10 29. The isolated peptide of claim 24 or 25 wherein said difference of one amino acid residue is the result of a substitution of one basic amino acid unit by another basic amino acid.

30. A composition comprising one or more of the isolated peptides of claim 24 or 25 suspended in a pharmacologically acceptable carrier.

15 31. A process for treating a patient afflicted with tuberculosis characterized by tuberculosis infected cells expressing HLA-A2, comprising administering to said patient an effective amount of the antibody of claim 15 in a pharmaceutically acceptable carrier.

20 32. A process for protecting a patient against infection with tuberculosis characterized by tuberculosis infected cells expressing HLA-A2, comprising administering to a patient at risk of such infection an effective amount of the antibody of claim 15 in a pharmaceutically acceptable carrier.